

### **ABSTRACT**

The invention relates to a generator/motor system and a method for operating this generator/motor system with which the filter currents are reduced. The generator/motor system has, for this purpose, a rotational field machine (DM) and a pulse-controlled inverter and filter capacitors (C1, C2). The pulse-controlled inverter is formed in the embodiment according to the invention by means of two identical pulse-controlled inverters (PWR1, PWR2) which each have half the rated power. During operation, depending on the necessary rotational speed switching over is performed between a star circuit in which only the first pulse-controlled inverter is operational, and a single phase circuit in which both pulse-controlled inverters are operational. In order to obtain a torque which is comparable to the prior art, even if only one of the two pulse-controlled inverters is used, the rotational field machine has approximately twice the number of stator turns.

(Fig. 1)